

Print Request Result(s)

Printer Name: cpk2_4c12_gbluptr

Printer Location: cpk2__4c12

Number of Copies Printed : 1

- US20020163518: Ok
- US20030206710: Ok

OK

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Print Request Result(s)

Printer Name: cpk2_4c12_gbluptr

Printer Location: cpk2__4c12

Number of Copies Printed : 1

- US20030187829: Ok
- US20020163518: Ok
- US006564263: Ok
- US006418424: Ok
- US006400996: Ok

OK

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Generate Collection

Print

L11: Entry 3 of 10

File: USPT

Feb 12, 2002

DOCUMENT-IDENTIFIER: US 6347303 B1

TITLE: System configuration proposal method and tool therefor

Brief Summary Text (6):

In order to support the work at the planning stage of the configuration/improvement of an information system, various system planning methods and supporting tools are conventionally used, especially, the technique for supporting analysis and evaluation of a process by modelling a business process to be systemized as a process map by the expression of a hierarchical flowchart or network to simulate response time throughput, costs, and the like of the process has been proposed. The technique is described in literature such as ".,IEEE transactions on systems, man and cybernetics", Vol. 26, No. 5, September, pp 572-582, 1996 and "Workgroup Computing Report", Vol. 18, No. 6, pp 3-15, 1996. The technique for supporting an upstream design process of the system from a business process definition is described in "Nikkei BP, An introduction to CIS database design", June, 1996. Further, the technique for evaluating the suitability of the function provided by a simulator to a task carried out by a driver during driving in an educational scene by using fuzzy relationship in order to support the design of the simulator for safety driving education of a vehicle, a two-wheeled vehicle, and the like is described in "IATSS Research", Vol. 17, No. 1, 1993.

Brief Summary Text (41):

With respect to all of the degrees of relationship between the functional process item and the related functional item provided by the system configuration candidate, the degree of importance of the functional process item, and the degree of functional sufficiency of the provided functional item, the setting contents can be defined by numerical values.

Brief Summary Text (63):

means for visually and interactively defining the degree of importance expressing the degree of importance of the defined each functional process by numerical values and the degree of sufficiency expressing the degree of functional sufficiency of each of functional items provided by the system configuration candidate by numerical values;

Brief Summary Text (64):

means for visually and interactively defining a relationship matrix constructed by association of each of the functional items (means) provided by the system configuration candidate to each of the items (target) of the functional process and the degree of relationship expressing the degree of the relationship by numerical value;

Detailed Description Text (43):

In the suitability evaluation calculation, as shown in FIG. 16, the degree $mT'(t)$ of attainment of business support by the provided functional item is calculated by the following mapping function equation in which the degree of relationship is a fuzzy relationship, by the degree $mR(t, f)$ of relationship of the provided function item f relating to the functional process item t which has been defined before, the degree $mT(t)$ of importance of the functional process item and the degree $mF(f)$ of sufficiency of the provided functional item. ##EQU1##

[First Hit](#) [Fwd Refs](#)

Generate Collection

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L11: Entry 5 of 10

File: USPT

Feb 17, 1998

DOCUMENT-IDENTIFIER: US 5720005 A

TITLE: Circuit and method for processing lower limit value fuzzy inputs during a fuzzy logic operation

Brief Summary Text (6):

A step referred to as "fuzzification" is used to relate an input to a membership function in a system which implements fuzzy logic. The fuzzification process attaches concrete numerical values to subjective expressions such as "the temperature is warm." These numerical values attempt to provide a good approximation of human perception which is not generally limited to an environment of absolute truths. After the fuzzification step, a rule evaluation step is executed. During execution of the rule evaluation step, a technique referred to as "MIN-MAX" fuzzy inference is used to calculate numerical conclusions to linguistic rules defined by a user. Conclusions from the rule evaluation step are referred to as "fuzzy outputs" and may be true to varying degrees. Thus, competing results may be produced. A last step in the fuzzy logic process is referred to as "defuzzification." As the name implies, defuzzification is the process of combining all of the fuzzy outputs into a composite result which may be applied to a standard data processing system. For more information about fuzzy logic, refer to an article entitled "Implementing Fuzzy Expert Rules in Hardware" by James M. Sibigtroth. The article was published in the April, 1992 issue of AI EXPERT on pages 25 through 31.

Detailed Description Text (19):

One aspect of the present invention sorts the fuzzy inputs and maintains/tracks the relationship of fuzzy input to membership function so that the non-zero fuzzy inputs and rules using them will facilitate efficient scanning of the knowledge base. A second aspect of the present invention, which generates the fuzzy outputs from the sorted fuzzy inputs by efficiently scanning the rules/knowledge base, is closely related to the rule knowledge base format. As indicated above, the present invention is concerned with more efficiently processing fuzzy inputs within the rule evaluation process of a fuzzy logic operation. Though not necessary, utilization of the SIMD processor 200 promotes a more efficient rule evaluation process. Referring to FIG. 9, there is illustrated portions of the SIMD processor 200--primarily the IDR 205 and the CMA 201. Additionally, there is illustrated the registers V3 and V4, which may be portions of the CMA 201 or PE 203. The IDR 205 is utilized to store the fuzzy input values, which are received from the fuzzification process. The register V4 is utilized to store the fuzzy output values, which are then defuzzified as briefly described above. Note, the values within the register V4 are initialized to zero.

[First Hit](#) [Fwd Refs](#)

Generate Collection

Print

L11: Entry 5 of 10

File: USPT

Feb 17, 1998

DOCUMENT-IDENTIFIER: US 5720005 A

TITLE: Circuit and method for processing lower limit value fuzzy inputs during a fuzzy logic operation

Brief Summary Text (6):

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[First Hit](#) [Fwd Refs](#)

Generate Collection

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L11: Entry 8 of 10

File: USPT

Mar 15, 1994

DOCUMENT-IDENTIFIER: US 5295226 A

TITLE: Fuzzy computer

Brief Summary Text (7):

Research into fuzziness has emphasized that human knowledge is based on accumulated experience which is summed up as linguistic information such as expert knowledge. This linguistic information is generally endowed with vagueness, ambiguity, inaccuracy, and incompleteness so it can be characterized as membership functions. The size of the membership can be expressed by numerical values in the region from 0.0 to 1.0, varying within this range.

Detailed Description Text (15):

When one premise ($x=A'$) is given for each implication rule ($x=A.fwdarw.y=B$), from which a conclusion ($y=B'$) is inferred, the "compositional rule of inference" can be represented by the following using the fuzzy relationship R . ##EQU2##

Detailed Description Text (16):

Various operations have been proposed to represent the fuzzy relationship r . For details, refer to Masaharu Mizumoto and Hans-Jurgen Zimmermann, "Comparison of Fuzzy Reasoning Methods," Fuzzy Sets and Systems Vol. 8, No. 3, pp. 253-283 (1982).

Detailed Description Text (20):

Therefore, using MIN/MAX operations as the $*$ operations and the MIN operation rule as the fuzzy relationship, the conclusion $b.sub.j$ ' of the compositional rule of inference is represented as follows: ##EQU3##

Print Selection

Clear

Cancel

Print

Print First Page

 Section: Page(s): Print Copy:

Select?	Document ID	Section(s)	Page(s)	# Pages to print	Database
<input checked="" type="checkbox"/>	6347303	all	all	43	PGPB,USPT,USOC,EPAB,JPAB,DWPI
<input checked="" type="checkbox"/>	5720005	all	all	21	PGPB,USPT,USOC,EPAB,JPAB,DWPI
<input checked="" type="checkbox"/>	5295226	all	all	* 67	PGPB,USPT,USOC,EPAB,JPAB,DWPI
<input checked="" type="checkbox"/>	5167005	all	all	* 66	PGPB,USPT,USOC,EPAB,JPAB,DWPI

Note: Print requests for more than 49 pages are denoted by '*' and are in red.

Building Room Printer

cpk2

4c12

gbluptr

Freeform Search

Database:

US Pre-Grant Publication Full-Text Database
 US Patents Full-Text Database
 US OCR Full-Text Database
 EPO Abstracts Database
 JPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Term:

15 and (numerical near value)

Display: Documents in Display Format: Starting with Number Generate: ☐ Hit List ☒ Hit Count ☐ Side by Side ☐ Image

Search

Clear

Interrupt

Search History

DATE: Monday, April 12, 2004 [Printable Copy](#) [Create Case](#)

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L11</u>	15 and (numerical near value)	10	<u>L11</u>
<u>L10</u>	L9 and audiovideo	1	<u>L10</u>
<u>L9</u>	L8 and fuzzy	207	<u>L9</u>
<u>L8</u>	fuzzy near relation\$	207	<u>L8</u>
<u>L7</u>	L5 and mpeg	1	<u>L7</u>
<u>L6</u>	L5 and mpeg7	0	<u>L6</u>
<u>L5</u>	fuzzy near relationship	71	<u>L5</u>
<u>L4</u>	11 and (numerical near value)	5	<u>L4</u>
<u>L3</u>	12 and (numerical near value)	2	<u>L3</u>
<u>L2</u>	L1 and fuzzy\$	8	<u>L2</u>
<u>L1</u>	mpeg7	116	<u>L1</u>

END OF SEARCH HISTORY

First Hit**End of Result Set**

Generate Collection

Print

L3: Entry 2 of 2

File: PGPB

Nov 7, 2002

DOCUMENT-IDENTIFIER: US 20020163518 A1

TITLE: Graphical rewriting system for multimedia descriptions

Detail Description Paragraph:

[0067] An example of node replacement is illustrated in FIG. 7. The input graph 700 is a starting graph for a user that wants to find multimedia content that describes how to determine when a piece of fruit is ripe. The input graph 700 contains three nodes, fruit 701, ripe 703, and parameterization 705. During the graph rewriting process 707, the input graph 700 is matched with an alphabet graph in the GCS that parameterizes the same structure. Applying the associated rule graph to the input graph 700 results in graph 710 in which the parameterization node 705 has been replaced by a more complex structure that relates perceived color to the ripeness of a piece of fruit. The resulting graph 710 can now be used to search for content that describes the ripe colors of various types of fruit. The new structure is interpreted as a parameterization of the relationship between the fruit and the property "ripe". In MPEG-7 practice, the parameter values vary from zero to one, but they may take any range. This value is interpreted as the value of the membership of "fruit" and "ripe" in the relation "property of". A relation is formally a set, and this membership function is a measure of fuzzy set membership. It is a function of color 715, in this example, so it is embodied by a Semantic State called "Member function" 713. As the color of the fruit, described in the color histogram 711, varies from, for example, green to brown, the membership value varies from zero to one, indicating that the fruit is most ripe when it is brown, and least ripe when it is green. Another example could have applied another eligible rule, say one which parameterized the ripeness of fruit by a membership function and a "softness" value.

Detail Description Paragraph:

[0070] An unknown as in the above example may be frequently used, so it can be built of smaller "words" and a classification scheme of unknowns may be stored for subsequent use. The unknown node is a "match objects, events, place and duration, with allowed edges between place and object, between duration and object, and likewise for events" node. It can be used for elements of an alphabet graph other than the unknown. As interface or context, it provides restrictions on what may be attached to the unknown when the rule is applied. Multiple object and event nodes may be mapped to the unknown on a single operation (operations in parallel), but in this case, they need to be disjoint because there are no relations between the objects and events in the alphabet. All connections between them must go through the context. In an alternate embodiment, the adjacency matrix is also stored by assigning numerical values to all the edges and nodes in the alphabet and rule graphs in the order in which the graph is written. It will be appreciated that context need not be implicit as in the present example, but may be explicitly added to restrict what kind of relations or datatypes may occur in the rest of the graph. In one embodiment, since there is only one context in an alphabet graph its identifier and name is "context."

Detail Description Table CWU:

9 <complexType name="GraphicalClassificationScheme" <complexContent> <extension

```
base="mpeg7: ClassificationSchemeType"> <attribute name="strict" type="boolean"
use="required" default="false" /> </extension> </complexContent> </complexType>
```

Detail Description Table CWU:

```
10 <complexType name="GraphType"> <complexContent> <extension base="mpeg7:DSType">
<choice minOccurs="0" maxOccurs="unbounded"> <element name="Node"> <complexType>
<complexContent> <extension base="mpeg7:ReferenceType"> <attribute name="id"
type="ID" use="optional"/> <attribute name="name" type="string" use="optional"/>
</extension> </complexContent> </complexType> </element> <element name="Relation"
type="mpeg7:RelationBaseType"/> </choice> </extension> </complexContent>
</complexType>
```

Detail Description Table CWU:

```
11 <complexType name="GraphicalTermDefinitionType">- ; <complexContent> <extension
base="mpeg7:TermDefinitionBaseType"> <choice minOccurs="1" maxOccurs="unbounded">
<element name="templateGraph" type="mpeg7:GraphType"/> <element
name="alphabetGraph" type="mpeg7:GraphType"/> <element name="ruleGraph"
type="mpeg7:GraphType"/> <element name="alphabetGraphRef"
type="mpeg7:TermUseType"/> <element name="morphismGraph" type="mpeg7:GraphType"/>
</choice> <attribute name="termId" type="NMToken" use="required"/> <attribute
name="production" type="string" use="optional"/> </extension> </complexContent>
</complexType>
```

Detail Description Table CWU:

```
12 <complexType name="MorphismGraphType"> <complexContent> <extension
base="mpeg7:GraphType"> <choice minOccurs="1"> <element name="SourceGraphRef"
type="mpeg7:Reference"/> <element name="SourceGraphTermRef"
type="mpeg7:TermUseType"/> </choice> <choice minOccurs="1"> <element
name="TargetGraphRef" type="mpeg7:Reference"/> <element name="TargetGraphTermRef"
type="mpeg7:TermUseType"/> </choice> </extension> </complexContent> </complexType>
```

First Hit Fwd Refs



Generate Collection

Print

L2: Entry 6 of 8

File: USPT

May 13, 2003

DOCUMENT-IDENTIFIER: US 6564263 B1

TITLE: Multimedia content description framework

Detailed Description Text (60):

The domain of MPEG-7 descriptors is very large. An investigation of early proposals for MPEG-7 show that a large number of features and metadata have already been suggested, and this list is only growing to increase. Most of these are specific to particular media objects or application domain. XML includes an excellent mechanism, the Document Type Definition or DTDs which make it possible to manage the plethora of meta-data and feature descriptors by DTDs which support the subset for a particular media or application. The DTDs also makes it easy for a particular community (say Satellite Imagery vs. News videos) to share and conform to a specific set of MPEG7 descriptors by subscribing to a common set of DTDs.

Detailed Description Text (89):

An aggregation may be defined as the union of a collection of terminal or nonterminal objects and the access methods. Components in an aggregation description scheme, in accordance with the present invention, preferably include a description of: Grand schema: This is the catalog of all of the data and services provided by the aggregation; Data description: This description preferably includes all of the inter-object specification (IOS) as well as InfoPyramid intra-object specification. This corresponds to the data catalog in the traditional sense, and enables the understanding what is contained in the aggregation. Service description: This describes the services provided by the aggregation, including search and retrieval of data through the specification of parametric data, or the search and retrieval of data through similarity/fuzzy retrieval using features or semantics, or a combination of both.

Detailed Description Text (120):

Our contention is that query and retrieval are interlinked. A response to a query is the content matching the query being returned. Just as MPEG7 does not specifically address the search mechanism, but the MPEG7 representations have to support search; they also will have to support access even though MPEG7 does not address retrieval. It will be good if the same representation supports both search and retrieval. Just as in search, different components may have to be exposed to meet the search; different components may have to be returned when an access is made. For example, when the matching stories are returned as summaries for the results, the news story InfoPyramid has to return a summary representation (for example, containing the key frames of the video and a summary of the news). It would be inefficient for the news story InfoPyramid to return the news videos, as these may overwhelm the network and also the video representation makes it difficult to browse through a list of news videos. This mechanism for determining the best format of the content to return for satisfying a request is called content negotiation. In the TV News video application, the content negotiation decides which representation of the new story to deliver based on the context: summary, full form, and client with limited bandwidth or limited display capabilities.

First Hit

Generate Collection

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L2: Entry 5 of 8

File: PGPB

Nov 7, 2002

DOCUMENT-IDENTIFIER: US 20020163518 A1

TITLE: Graphical rewriting system for multimedia descriptions

Detail Description Paragraph:

[0067] An example of node replacement is illustrated in FIG. 7. The input graph 700 is a starting graph for a user that wants to find multimedia content that describes how to determine when a piece of fruit is ripe. The input graph 700 contains three nodes, fruit 701, ripe 703, and parameterization 705. During the graph rewriting process 707, the input graph 700 is matched with an alphabet graph in the GCS that parameterizes the same structure. Applying the associated rule graph to the input graph 700 results in graph 710 in which the parameterization node 705 has been replaced by a more complex structure that relates perceived color to the ripeness of a piece of fruit. The resulting graph 710 can now be used to search for content that describes the ripe colors of various types of fruit. The new structure is interpreted as a parameterization of the relationship between the fruit and the property "ripe". In MPEG-7 practice, the parameter values vary from zero to one, but they may take any range. This value is interpreted as the value of the membership of "fruit" and "ripe" in the relation "property of". A relation is formally a set, and this membership function is a measure of fuzzy set membership. It is a function of color 715, in this example, so it is embodied by a Semantic State called "Member function" 713. As the color of the fruit, described in the color histogram 711, varies from, for example, green to brown, the membership value varies from zero to one, indicating that the fruit is most ripe when it is brown, and least ripe when it is green. Another example could have applied another eligible rule, say one which parameterized the ripeness of fruit by a membership function and a "softness" value.

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9 <complexType name="GraphicalClassificationScheme" <complexContent> <extension
base="mpeg7: ClassificationSchemeType"> <attribute name="strict" type="boolean"
use="required" default="false" /> </extension> </complexContent> </complexType>
```

Detail Description Table CWU:

```
10 <complexType name="GraphType"> <complexContent> <extension base="mpeg7:DSType">
<choice minOccurs="0" maxOccurs="unbounded"> <element name="Node"> <complexType>
<complexContent> <extension base="mpeg7:ReferenceType"&g- t; <attribute name="id"
type="ID" use="optional"/> <attribute name="name" type="string" use="optional"/>
</extension> </complexContent> </complexType> </element> <element name="Relation"
type="mpeg7:RelationBaseType"/> </choice> </extension> </complexContent>
</complexType>
```

Detail Description Table CWU:

```
11 <complexType name="GraphicalTermDefinitionType">- ; <complexContent> <extension
base="mpeg7:TermDefinitionBaseType"> <choice minOccurs="1" maxOccurs="unbounded">
<element name="templateGraph" type="mpeg7:GraphType"/> <element
name="alphabetGraph" type="mpeg7:GraphType"/> <element name="ruleGraph"
type="mpeg7:GraphType"/> <element name="alphabetGraphRef"
type="mpeg7:TermUseType"/> <element name="morphismGraph" type="mpeg7:GraphType"/>
</choice> <attribute name="termId" type="NMTOKEN" use="required"/> <attribute
name="production" type="string" use="optional"/> </extension> </complexContent>
```

• </complexType>

Detail Description Table CWU:

```
12 <complexType name="MorphismGraphType"> <complexContent> <extension
base="mpeg7:GraphType"> <choice minOccurs="1"> <element name="SourceGraphRef"
type="mpeg7:Reference"/> <element name="SourceGraphTermRef"
type="mpeg7:TermUseType"/> </choice> <choice minOccurs="1"> <element
name="TargetGraphRef" type="mpeg7:Reference"/> <element name="TargetGraphTermRef"
type="mpeg7:TermUseType"/> </choice> </extension> </complexContent> </complexType>
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First Hit

Generate Collection

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L2: Entry 1 of 8

File: PGPB

Nov 6, 2003

DOCUMENT-IDENTIFIER: US 20030206710 A1

TITLE: Audiovisual management system

Detail Description Paragraph:

[0350] The third column "TestOp" of the Mapping Table includes what comparison to perform between the corresponding user preference path (column 1) and (resolved) input Program Description location (column 2). In this manner, the Mapping Table provides a convenient manner of identifying the interrelationships between the corresponding data from the user preferences and input Program Descriptions. For instance, the "FamilyName" preference in FIG. 35 has a test operator of substring-case-insensitive when compared with "/*FamilyName". Test operators may yield a discrete result, such as true or false, they may yield a range of values, or any other desired data. In particular results that span a range of values provide the advantage that filtered programs may be sorted according to the resultant "similarity" value. This provides the user with a ranked output that they may select from. Also, user preferences may be "softened" to pass programs that are near matches to the specific preference criteria. This fuzzy approach may allow the user preference description to more clearly model the user's intended criteria. In cases where the entry is always a parent (composed of children preference tests) the test operator may be NA (not applicable). An exemplary set of test operators are illustrated in FIG. 37.

Detail Description Table CWU:

```
39 <!-- ##### --> <!-- Definition of
UsageHistory DS --> <!-- ##### -->
<element name="UsageHistory" type="mpeg7:UsageHistoryType"/> <complexType
name="UsageHistoryType"> <complexContent> <extension base="mpeg7:DSType"> <sequence
minOccurs="0" maxOccurs="1"> <element name="UserIdentifier"
type="mpeg7:UserIdentifierType" minOccurs="0" maxOccurs="1"/> <element
name="UserActionHistory" type="mpeg7:UserActionHistoryType"
minOccurs="0" maxOccurs="unbounded"/> <element name="UserChoiceHistory"
type="mpeg7:UserChoiceHistoryType" minOccurs="0" maxOccurs="unbounded"/>
</sequence> <attribute name="allowCollection" type="boolean" use="default"
value="true"/> </extension> </complexContent> </complexType> <!--
##### --> <!-- Definition of
UserActionHistory DS --> <!-- ##### -->
<element name="UserActionHistory" type="mpeg7:UserActionHistoryType"/> <- gt;
<complexType name="UserActionHistoryType"> <complexContent> <extension
base="mpeg7:DSType"> <sequence minOccurs="0" maxOccurs="1"> <element
name="ObservationPeriod" type="mpeg7:TimeType" minOccurs="1"
maxOccurs="unbounded"/> <element name="UserActionList"
type="mpeg7:UserActionListType" minOccurs="1" maxOccurs="unbounded"/> </sequence>
<attribute name="protection" type="boolean" use="default" value="true"/>
</extension> </complexContent> </complexType> <!--
##### --> <!-- Definition of
UserActionList DS --> <!-- ##### -->
<element name="UserActionList" type="mpeg7:UserActionListType"/> <complexType
name="UserActionListType"> <complexContent> <extension base="mpeg7:DSType">
<sequence minOccurs="0" maxOccurs="1"> <element name="ActionType"
type="mpeg7:ControlledTermType" minOccurs="1" maxOccurs="1"/> <element
```

```

name="UserAction" type="mpeg7:UserActionType" minOccurs="0" maxOccurs="unbounded"/>
</sequence> <attribute name="numInstances" type="nonNegativeInteger"
use="optional"/> <attribute name="totalDuration" type="mpeg7:durationType"
use="optional"/> </extension> </complexContent> </complexType> <!--
##### -> <!-- Definition of
UserAction DS --> <!-- ##### -->
<element name="UserAction" type="mpeg7:UserActionType"/> <complexType
name="UserActionType"> <complexContent> <extension base="mpeg7:DSType"> <sequence
minOccurs="0" maxOccurs="1"> <element name="ActionTime" minOccurs="0"
maxOccurs="1"> <complexType> <sequence minOccurs="0" maxOccurs="1"> <element
name="ActionMediaTime" type="mpeg7:MediaTimeType" minOccurs="0" maxOccurs="1"/>
<element name="ActionGeneralTime" type="mpeg7:TimeType" minOccurs="0"
maxOccurs="1"/> </sequence> </complexType> </element> <element
name="ProgramIdentifier" type="mpeg7:UniqueIDType" minOccurs="1" maxOccurs="1"/>
<element name="ActionDataItem" type="mpeg7:ReferenceType" minOccurs="0"
maxOccurs="unbounded"/> </sequence> </extension> </complexContent> </complexType>
<!-- ##### -> <!-- Definition of
UserChoiceHistory DS --> <!-- ##### -->
<element name="UserChoiceHistory" type="mpeg7:UserChoiceHistoryType"/> <complexType
name="UserChoiceHistoryType"> <complexContent> <extension base="mpeg7:DSType">
<sequence minOccurs="1" maxOccurs="1"> <element name="ObservationPeriod"
type="mpeg7:TimeType" minOccurs="1" maxOccurs="unbounded"/> <element name="
ClassificationHistory" type="mpeg7:ClassificationHistoryType" minOccurs="0"
maxOccurs="1"/> <element name="CreationHistory" type="mpeg7:CreationHistoryType"
minOccurs="0" maxOccurs="1"/> <element name="SourceHistory"
type="mpeg7:SourceHistoryType" minOccurs="0" maxOccurs="1"/> <element
name="SummarizationHistory" type="mpeg7:SummarizationHistoryType" minOccurs="0"
maxOccurs="1"/> <element name="KeywordHistory" type="mpeg7:KeywordHistoryType"
minOccurs="0" maxOccurs="1"/> </sequence> <attribute name="numTotalInstances"
type="nonNegativeInteger"/> <attribute name="protection" type="boolean"
use="default" value="true"/> </extension> </complexContent> </complexType> <!--
##### --> <!-- Definition of
ClassificationHistory DS --> <!-- ##### -->
--> <complexType name="ClassificationHistoryType"> <complexContent> <extension
base="mpeg7:DSType"> <sequence minOccurs="1" maxOccurs="1"> <element
name="CountryHistory" minOccurs="0" maxOccurs="unbounded"> <complexType> <extension
base="mpeg7:ISO3166-1CountryCode"> <attribute name="numInstances"
type="nonNegativeInteger"/> <attribute name="totalDuration"
type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </extension>
</complexType> </element> <element name="ReleaseDateHistory" minOccurs="0"
maxOccurs="unbounded"> <complexType> <extension base="mpeg7:TimeType"> <attribute
name="numInstances" type="nonNegativeInteger"/> <attribute name="totalDuration"
type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </extension>
</complexType> </element> <element name="LanguageHistory" minOccurs="0"
maxOccurs="unbounded"> <complexType> <extension base="LanguageType"> <attribute
name="numInstances" type="nonNegativeInteger"/> <attribute name="totalDuration"
type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </extension>
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maxOccurs="unbounded"> <complexType> <extension base="mpeg7:GenreType"> <attribute
name="numInstances" type="nonNegativeInteger"/> <attribute name="totalDuration"
type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </extension>
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maxOccurs="unbounded"> <complexType> <sequence minOccurs="1" maxOccurs="1">
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name="RatingCriterion"> <complexType> <sequence minOccurs="1" maxOccurs="1">
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name="WorstRating" type="integer"/> <element name="BestRating" type="integer"/>
</sequence> </complexType> </element> <element name="RatingValue"
maxOccurs="unbounded"> <complexType> <simpleContent>

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Detail Description Table CWU:

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<extension base="integer"> <attribute name="numInstances"
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name="totalDuration" type="mpeg7:durationType"/> <attribute name="id" type="ID"/>
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maxOccurs="unbounded"> <complexType> <extension base="mpeg7:ParentalGuidanceType"
/> <attribute name="numInstances" type="nonNegativeInteger" /> <attribute
name="totalDuration" type="mpeg7:durationType" /> <attribute name="id" type="ID"/>
</extension> </complexType> </element> </sequence> <attribute
name="numTotalInstances" type="nonNegativeInteger"/> </extension>
</complexContent> </complexType> <!--
##### --> <!-- Definition of
CreationHistory DS --> <!-- ##### -->
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minOccurs="0" maxOccurs="unbounded"> <complexType> <extension
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type="nonNegativeInteger"/> <attribute name="totalDuration"
type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </extension>
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##### --> <!-- Definition of
SourceHistory DS --> <!-- ##### -->
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base="mpeg7:DSType"> <sequence minOccurs="1" maxOccurs="1"> <element
name="PublicationTypeHistory" minOccurs="0" maxOccurs="unbounded"> <complexType>
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type="nonNegativeInteger"/> <attribute name="totalDuration"
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name="totalDuration" type="mpeg7:durationType"/> <attribute name="id" type="ID"/>
</extension> </simpleContent> </complexType> </element> <element
name="PublicationPlaceHistory" minOccurs="0" maxOccurs="unbounded"> <complexType>
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type="mpeg7:durationType"/> </extension> </complexType> </element> <element
name="PublicationDateHistory" minOccurs="0" maxOccurs="unbounded"> <complexType>
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maxOccurs="unbounded"> <complexType> <extension base="mpeg7:AgentType"> <attribute
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</element> <element name="PublicationFormHistory" minOccurs="0"
maxOccurs="unbounded"> <complexType> <attribute name="formType"> <simpleType>
<restriction base="string"> <enumeration value="payPerView"/> <enumeration
value="payPerUse"/> <enumeration value="live"/> <enumeration value="repeat"/>
</restriction> </simpleType> </attribute> <attribute name="numInstances"
type="nonNegativeInteger"/> <attribute name="totalDuration"
type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </complexType>
</element> <element name="MediaFormatHistory" minOccurs="0" maxOccurs="unbounded">
<sequence minOccurs="1" maxOccurs="1"> <choice minOccurs="1" maxOccurs="1">
<element name="FileFormat" type="mpeg7:ControlledTermType"/> <element name="Medium"
type="mpeg7:ControlledTermType"/> <element name="System"
type="mpeg7:ControlledTermType"/> <element name="VisualCodingFormat"
type="mpeg7:ControlledTermType"/> <element name=" AspectRatio"
type="mpeg7:ControlledTermType"/> <element name="Color"
type="mpeg7:ControlledTermType"/> <element name="AudioCodingFormat"
type="mpeg7:ControlledTermType"/> <element name="AudioPresentation"
type="mpeg7:ControlledTermType"/> </choice> </sequence> <attribute
name="numInstances" type="nonNegativeInteger"/> <attribute name="totalDuration"
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Detail Description Table CWU:

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</complexContent> </complexType> <complexType name="KeywordHistoryType">
<complexContent> <extension base="mpeg7:DSType"> <sequence minOccurs="1"
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type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </extension>
</complexType> </element> </sequence> <attribute name="numTotalInstances"
type="nonNegativeInteger"/> </extension> </complexContent> </complexType> <!--
##### --> <!-- Definition of
SummarizationHistory DS --> <!-- ##### --> -
-> <complexType name="SummarizationHistoryType"> <complexContent> <extension
base="mpeg7:DSType"> <sequence minOccurs="1" maxOccurs="1"> <element
name="SummaryComponentHistory" minOccurs="0" maxOccurs="unbounded"> <complexType>
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type="nonNegativeInteger"/> <attribute name="totalDuration"
type="mpeg7:durationType"/> <attribute name="id" type="ID"/> </extension>
</complexType> </element> <element name="SummaryThemeHistory" minOccurs="0"
maxOccurs="unbounded"> <complexType> <extension base="mpeg7:TextualType">
<attribute name="numTotalInstances" type="nonNegativeInteger"/> <attribute
name="protection" type="boolean" use="default"/> <attribute name="id" type="ID"/>
</extension> </complexType> </element> <element name="SummaryDurationHistory"
minOccurs="0" maxOccurs="unbounded"> <complexType> <sequence minOccurs="1"
maxOccurs="1"> <element name="MinNumSummaryFrames" type="nonNegativeInteger"
minOccurs="0" maxOccurs="1"/> <element name="MinSummaryDuration"
type="mpeg7:durationType" minOccurs="0" maxOccurs="1"/> <element
name="MaxNumSummaryFrames" type="nonNegativeInteger" minOccurs="0" maxOccurs="1"/>
<element name="MaxSummaryDuration" type="mpeg7:durationType" minOccurs="0"
maxOccurs="1"/> <element name="AvgNumSummaryFrames" type="nonNegativeInteger"
minOccurs="0" maxOccurs="1"/> <element name="AvgSummaryDuration"
type="mpeg7:durationType" minOccurs="0" maxOccurs="1"/> </sequence> <attribute
name="id" type="ID"/> </complexType> </element> </sequence> <attribute
name="numTotalInstances" type="nonNegativeInteger"/> </extension> </complexContent>
</complexType> UsageHistory DS Semantics

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